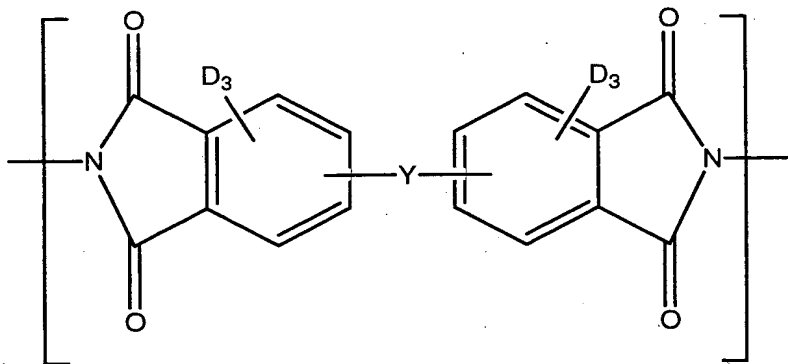


ABSTRACT

The present invention relates to a deuterated polyimide, the backbone of which comprises an alternation between:

- at least one repeat unit corresponding to the following formula (I):

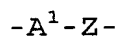


(I)

in which:

- Y represents a single bond or a spacer group; and

- at least one repeat unit corresponding to the following formula (II):



(II)

in which:

- A^1 represents a perdeuterated aromatic group comprising from 6 to 10 carbon atoms;

- Z represents a single bond or a group chosen from $-O-C_6D_4-$, $-CO-C_6D_4-$ and $-C_6D_4-$.

These polyimides are used in particular as materials which are transparent within the region from 2500 to 3500 cm^{-1} , for example in laser devices.